

System Test Plan: 4 Connect Four

Introduction: This document contains a rough description of how the program should work and what should be expected when these inputs are done. Plan is subject to change because it is a rough outline.

Test Files:

Test ID	Description	Expected Results	Actual Results
testInitializeGame Author: Zachary Norton	\$ java -cp bin ConnectGUI.java	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits
testInitializedGameWithArgs8and4 Author: Zachary Norton	\$ java -cp bin ConnectGUI.java 8 4 4	Program begins with a board size of 8 and 4 pieces required to be connected to win and 4 players	Program begins with a board size of 8 and 4 pieces required to be connected to win and 4 players
testGameWithNegativeBoardSize Author: Zachary Norton	\$ java -cp bin ConnectGUI.java -1 4 4	gridSize must be between 2 and 16 winConnectedPieces must be between 1 and gridSize Program exits	gridSize must be between 2 and 16 winConnectedPieces must be between 1 and gridSize Program exits
testEachPlayerPlays Author: Ethan Perez	\$ java -cp bin ConnectGUI.java 8 4 4 Player 1 presses button for first col Player 2 presses button for second col	There is a red O in first col There is a blue X in second col	There is a red O in first col There is a blue X in second col There is an orange Y in third col There is a purple Z in fourth col

	Player 3 presses button for third col Player 4 presses button for fourth col	There is a orange Y in third col There is a purple Z in fourth col	
testPlayer1WinningMatchingAllPieces Author: Ethan Perez	\$ java -cp bin ConnectGUI.java 8 4 2 Player 1 presses button for first col Player 2 presses button for second col Player 1 presses button for first col Player 2 presses button for second col **repeats until Player 1 has four pieces in first col**	Message, "Game has been won!" is displayed. Player 1 receives one point to their total score. Cannot place any pieces, the turns do not change, can restart the game and have players keep score.	Message, "Game has been won!" is displayed. Player 1 receives one point to their total score. Cannot place any pieces, the turns do not change, can restart the game and have players keep score.
testInvalidNumOfPlayers Author: Ethan Perez	\$ java -cp bin ConnectGUI.java 8 4 -5	Message, "numPlayers must be between 2 and 4" is printed. Program exits	Message, "numPlayers must be between 2 and 4" is printed. Program exits
testInvalidNumOfPiecesToMatch Author: Ethan Perez	\$ java -cp bin ConnectGUI.java 8 17 2	Message, "winConnectedPieces must be between 1 and gridSize" is printed. Program exits	Message, "winConnectedPieces must be between 1 and gridSize" is printed. Program exits
testInvalidInputs Author: Talha Djibril	\$ java -cp bin ConnectGUI.java abc abc abc	Message, "gridSize, winConnectedPieces, and numPlayers must be integers" is printed.	Message, "gridSize, winConnectedPieces, and numPlayers must be integers" is printed. Program exits

		Program exits	
testTooManyInputs Author: Talha Djibril	\$ java -cp bin ConnectGUI.java 8 4 4 8 4	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits
testNotEnoughInputs Author: Talha Djibril	\$ java -cp bin ConnectGUI.java 8 4	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits	Usage: java -cp bin ConnectGUI gridSize winConnectedPieces numPlayers Program exits
testWonWithOnePiece LastCell Author: Ethan Perez	\$ java -cp bin ConnectGUI.java 3 3 2 Player 1 presses button for first col Player 2 presses button for second col Player 1 presses button for first col Player 2 presses button for third col Player 1 presses button for second col Player 2 presses button for third col Player 1 presses button for second col Player 2 presses button for first col Player 1 presses button for third col	Message, "Game has been won!" is displayed. Player 1 receives one point to their total score. Cannot place any pieces, the turns do not change, can restart the game and have players keep score.	Message, "Game has been won!" is displayed. Player 1 receives one point to their total score. Cannot place any pieces, the turns do not change, can restart the game and have players keep score.